

**PACKAGING INFORMATION**

| Orderable Device | Status<br>(1) | Package Type | Package Drawing | Pins | Package Qty | Eco Plan<br>(2) | Lead finish/<br>Ball material<br>(6) | MSL Peak Temp<br>(3) | Op Temp (°C) | Device Marking<br>(4/5) | Samples                 |
|------------------|---------------|--------------|-----------------|------|-------------|-----------------|--------------------------------------|----------------------|--------------|-------------------------|-------------------------|
| ULN2002AN        | ACTIVE        | PDIP         | N               | 16   | 25          | RoHS & Green    | NIPDAU                               | N / A for Pkg Type   | -20 to 70    | ULN2002AN               | <a href="#">Samples</a> |
| ULN2002ANE4      | ACTIVE        | PDIP         | N               | 16   | 25          | RoHS & Green    | NIPDAU                               | N / A for Pkg Type   | -20 to 70    | ULN2002AN               | <a href="#">Samples</a> |
| ULN2003AD        | OBSOLETE      | SOIC         | D               | 16   |             | TBD             | Call TI                              | Call TI              | -40 to 70    | ULN2003A                |                         |
| ULN2003ADR       | ACTIVE        | SOIC         | D               | 16   | 2500        | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 70    | ULN2003A                | <a href="#">Samples</a> |
| ULN2003ADRG3     | OBSOLETE      | SOIC         | D               | 16   |             | TBD             | Call TI                              | Call TI              | -40 to 70    | ULN2003A                |                         |
| ULN2003ADRG4     | OBSOLETE      | SOIC         | D               | 16   |             | TBD             | Call TI                              | Call TI              | -40 to 70    | ULN2003A                |                         |
| ULN2003ADYYR     | ACTIVE        | SOT-23-THIN  | DYY             | 16   | 3000        | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 70    | UN2003A                 | <a href="#">Samples</a> |
| ULN2003AID       | OBSOLETE      | SOIC         | D               | 16   |             | TBD             | Call TI                              | Call TI              | -40 to 105   | ULN2003AI               |                         |
| ULN2003AIDR      | ACTIVE        | SOIC         | D               | 16   | 2500        | RoHS & Green    | NIPDAU   SN                          | Level-1-260C-UNLIM   | -40 to 105   | ULN2003AI               | <a href="#">Samples</a> |
| ULN2003AIDRG4    | OBSOLETE      | SOIC         | D               | 16   |             | TBD             | Call TI                              | Call TI              | -40 to 105   | ULN2003AI               |                         |
| ULN2003AIN       | OBSOLETE      | PDIP         | N               | 16   |             | TBD             | Call TI                              | Call TI              | -40 to 105   | ULN2003AIN              |                         |
| ULN2003AINSR     | ACTIVE        | SO           | NS              | 16   | 2000        | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 105   | ULN2003AI               | <a href="#">Samples</a> |
| ULN2003AIPW      | OBSOLETE      | TSSOP        | PW              | 16   |             | TBD             | Call TI                              | Call TI              | -40 to 105   | UN2003AI                |                         |
| ULN2003AIPWR     | ACTIVE        | TSSOP        | PW              | 16   | 2000        | RoHS & Green    | NIPDAU   SN                          | Level-1-260C-UNLIM   | -40 to 105   | (U2003AI, UN2003AI )    | <a href="#">Samples</a> |
| ULN2003AIPWRG4   | OBSOLETE      | TSSOP        | PW              | 16   |             | TBD             | Call TI                              | Call TI              | -40 to 105   | UN2003AI                |                         |
| ULN2003AN        | ACTIVE        | PDIP         | N               | 16   | 25          | RoHS & Green    | NIPDAU   SN                          | N / A for Pkg Type   | -40 to 70    | ULN2003AN               | <a href="#">Samples</a> |
| ULN2003ANE4      | OBSOLETE      | PDIP         | N               | 16   |             | TBD             | Call TI                              | Call TI              | -40 to 70    | ULN2003AN               |                         |
| ULN2003ANS       | OBSOLETE      | SO           | NS              | 16   |             | TBD             | Call TI                              | Call TI              | -40 to 70    | ULN2003A                |                         |
| ULN2003ANSR      | ACTIVE        | SO           | NS              | 16   | 2000        | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 70    | ULN2003A                | <a href="#">Samples</a> |
| ULN2003ANSRE4    | ACTIVE        | SO           | NS              | 16   | 2000        | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 70    | ULN2003A                | <a href="#">Samples</a> |
| ULN2003ANSRG4    | ACTIVE        | SO           | NS              | 16   | 2000        | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 70    | ULN2003A                | <a href="#">Samples</a> |
| ULN2003APW       | OBSOLETE      | TSSOP        | PW              | 16   |             | TBD             | Call TI                              | Call TI              | -40 to 70    | UN2003A                 |                         |
| ULN2003APWR      | ACTIVE        | TSSOP        | PW              | 16   | 2000        | RoHS & Green    | NIPDAU   SN                          | Level-1-260C-UNLIM   | -40 to 70    | UN2003A                 | <a href="#">Samples</a> |

| Orderable Device | Status<br>(1) | Package Type | Package Drawing | Pins | Package Qty | Eco Plan<br>(2) | Lead finish/<br>Ball material<br>(6) | MSL Peak Temp<br>(3) | Op Temp (°C) | Device Marking<br>(4/5) | Samples |
|------------------|---------------|--------------|-----------------|------|-------------|-----------------|--------------------------------------|----------------------|--------------|-------------------------|---------|
| ULN2003APWRG4    | OBSOLETE      | TSSOP        | PW              | 16   |             | TBD             | Call TI                              | Call TI              | -40 to 70    | UN2003A                 |         |
| ULN2004AD        | OBSOLETE      | SOIC         | D               | 16   |             | TBD             | Call TI                              | Call TI              | -20 to 70    | ULN2004A                |         |
| ULN2004ADR       | ACTIVE        | SOIC         | D               | 16   | 2500        | RoHS & Green    | NIPDAU   SN                          | Level-1-260C-UNLIM   | -20 to 70    | ULN2004A                | Samples |
| ULN2004ADRG4     | OBSOLETE      | SOIC         | D               | 16   |             | TBD             | Call TI                              | Call TI              | -20 to 70    | ULN2004A                |         |
| ULN2004AN        | ACTIVE        | PDIP         | N               | 16   | 25          | RoHS & Green    | NIPDAU                               | N / A for Pkg Type   | -20 to 70    | ULN2004AN               | Samples |
| ULN2004ANE4      | ACTIVE        | PDIP         | N               | 16   | 25          | RoHS & Green    | NIPDAU                               | N / A for Pkg Type   | -20 to 70    | ULN2004AN               | Samples |
| ULN2004ANSR      | ACTIVE        | SO           | NS              | 16   | 2000        | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -20 to 70    | ULN2004A                | Samples |
| ULQ2003AD        | OBSOLETE      | SOIC         | D               | 16   |             | TBD             | Call TI                              | Call TI              | -40 to 85    | ULQ2003A                |         |
| ULQ2003ADG4      | OBSOLETE      | SOIC         | D               | 16   |             | TBD             | Call TI                              | Call TI              |              | ULQ2003A                |         |
| ULQ2003ADR       | OBSOLETE      | SOIC         | D               | 16   |             | TBD             | Call TI                              | Call TI              | -40 to 85    | ULQ2003A                |         |
| ULQ2003ADRG4     | OBSOLETE      | SOIC         | D               | 16   |             | TBD             | Call TI                              | Call TI              |              | ULQ2003A                |         |
| ULQ2003AN        | ACTIVE        | PDIP         | N               | 16   | 25          | RoHS & Green    | NIPDAU                               | N / A for Pkg Type   | -40 to 85    | ULQ2003A                | Samples |
| ULQ2004AD        | ACTIVE        | SOIC         | D               | 16   | 40          | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | ULQ2004A                | Samples |
| ULQ2004ADG4      | ACTIVE        | SOIC         | D               | 16   | 40          | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   |              | ULQ2004A                | Samples |
| ULQ2004ADR       | ACTIVE        | SOIC         | D               | 16   | 2500        | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | ULQ2004A                | Samples |
| ULQ2004ADRG4     | ACTIVE        | SOIC         | D               | 16   | 2500        | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   |              | ULQ2004A                | Samples |
| ULQ2004AN        | ACTIVE        | PDIP         | N               | 16   | 25          | RoHS & Green    | NIPDAU                               | N / A for Pkg Type   | -40 to 85    | ULQ2004AN               | Samples |

(1) The marketing status values are defined as follows:

**ACTIVE:** Product device recommended for new designs.

**LIFEBUY:** TI has announced that the device will be discontinued, and a lifetime-buy period is in effect.

**NRND:** Not recommended for new designs. Device is in production to support existing customers, but TI does not recommend using this part in a new design.

**PREVIEW:** Device has been announced but is not in production. Samples may or may not be available.

**OBSOLETE:** TI has discontinued the production of the device.

(2) **RoHS:** TI defines "RoHS" to mean semiconductor products that are compliant with the current EU RoHS requirements for all 10 RoHS substances, including the requirement that RoHS substance do not exceed 0.1% by weight in homogeneous materials. Where designed to be soldered at high temperatures, "RoHS" products are suitable for use in specified lead-free processes. TI may reference these types of products as "Pb-Free".

**RoHS Exempt:** TI defines "RoHS Exempt" to mean products that contain lead but are compliant with EU RoHS pursuant to a specific EU RoHS exemption.

**Green:** TI defines "Green" to mean the content of Chlorine (Cl) and Bromine (Br) based flame retardants meet JS709B low halogen requirements of  $\leq 1000$ ppm threshold. Antimony trioxide based flame retardants must also meet the  $\leq 1000$ ppm threshold requirement.

- (3) MSL, Peak Temp. - The Moisture Sensitivity Level rating according to the JEDEC industry standard classifications, and peak solder temperature.
- (4) There may be additional marking, which relates to the logo, the lot trace code information, or the environmental category on the device.
- (5) Multiple Device Markings will be inside parentheses. Only one Device Marking contained in parentheses and separated by a "~" will appear on a device. If a line is indented then it is a continuation of the previous line and the two combined represent the entire Device Marking for that device.
- (6) Lead finish/Ball material - Orderable Devices may have multiple material finish options. Finish options are separated by a vertical ruled line. Lead finish/Ball material values may wrap to two lines if the finish value exceeds the maximum column width.

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**OTHER QUALIFIED VERSIONS OF ULQ2003A, ULQ2004A :**

- Automotive : [ULQ2003A-Q1](#), [ULQ2004A-Q1](#)

NOTE: Qualified Version Definitions:

- Automotive - Q100 devices qualified for high-reliability automotive applications targeting zero defects